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(54) Title: COLOUR COSMETIC SELECTION SYSTEM

(57) Abstract: A virtual makeover method is provided allowing a customer to select an optimum colour cosmetic palette through interaction with an Internet web site. The method includes downloading from the Internet web site a facial image which may be that of customers themselves, selection of a particular type of colour cosmetic, selection of a first colour from a palette of colours, application of the first colour to areas of the facial image and once the customer is satisfied with the colour selection, placement of an order for that cosmetic product appropriate to the area in the selected colour.

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COLOUR COSMETIC SELECTION SYSTEM

Field of the Invention

5 The present invention relates to a system for allowing a customer to select a colour palette of facial cosmetics and viewing their visual effect prior to actual application to the customer's face.

10 BACKGROUND OF THE INVENTION & PRIOR ART

Stay at home shopping has become quite popular. Indeed the twenty-first century will likely move a majority of purchasing from the store to the home. Virtual shopping on the Internet is already a lively phenomenon.

Some products are quite difficult to select without personal interaction with the actual product. Colour cosmetics are an excellent example. Consumers are faced with a palette of 20 colour which requires personalization and Lipstick must match with foundation. Eye shadow and lip and eyeliners must be in harmony with other colours painting the face. Until now, the only way a consumer could determine their preferred combination was through applying the actual cosmetic onto the face through trial and error.

Cosmetic customers have been aided by a number of companies in the industry that have sought to provide a means for selecting the customer's optimal colour shade. For example, 30 Clinique and Clarion have installed computers at sales counters for use by the customer. Information on colour shade, oiliness and other properties of a customer's skin are punched into the computer which then determines the company's most closely matching product.

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Custom blending is also offered by two major companies, Prescriptives (a division of Estee Lauder) and Visage (a division of Revlon). They begin a sale by manually evaluating a subject's skin colour. The salesperson is trained through the use of match cards to identify a user's matching skin foundation. Unfortunately manual systems suffer from poor reproducibility. Extensive training must also be invested in the salesperson.

10 U.S. Patent 5,622,692 (Rigg et al.) reports a system for customising a facial foundation product at point of sale to a customer. Three essential elements are present. include a skin analyser for reading skin properties, a programmable device receiving the reading and correlating it with an optimal formula and a formulation machine for 15 preparing the facial foundation product from various cosmetic chemical compositions. Technology described in this patent has commercially been embodied in Elizabeth. Arden's Custom Colour system available for many years in 20 major department stores. Arden's system has been a significant advance in the art.

However, it suffers from certain deficiencies including the inability of customers to evaluate different colour cosmetics in the context of their own skin coloration and in juxtaposition to combinations of different facial makeover products. Thus, it would be desirable to have visualised a lipstick and a foundation, eye shadow and/or blush on a colour interactive basis. Especially desirable would be to evaluate the interaction of the various colour cosmetics without actually having to place these on one's own face.

Another problem of the practiced art has been the inability of a customer to render an informed buying decision far from the store. It is true that the Internet has allowed home

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purchasing of products with which the customer is well acquainted. However, where a product requires a more physical review, such as visualising colour cosmetics, these have not yet rendered themselves suitable for Internet purchase.

Accordingly, it is an advantage of the present invention to provide a system and apparatus for virtual makeover of a facial colour palette without the necessity of the customer actually having to try on each colour cosmetic prior to final selection.

Another advantage of the present invention is to provide a virtual facial colour makeover that can be done in the privacy of the home.

These and other advantages of the present invention will become more readily apparent from the following summary and detailed discussion.

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SUMMARY OF THE INVENTION

According to a first aspect, the present invention provides a virtual makeover method for furnishing a customer with colour cosmetics including:

- (i) downloading from an Internet web site a facial image;
- (ii) selecting a colour cosmetic from eye shadow, lipstick, foundation, eyeliner, mascara, lip liner, blush and combinations thereof;
- (iii) selecting a first colour from a palette of colours for applying to a specified area of the facial image; and
- (iv) placing an order for the selected cosmetic with corresponding selected colour.

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BRIEF DESCRIPTION OF THE DRAWINGS

The various objects, features and advantages of the present invention will become more readily apparent from consideration of the following drawing in which:

Fig. 1 is a flow chart diagramming a program used in the system of the invention for selecting facial colour 10 cosmetic schemes;

Fig. 2 shows Screen 2 of the program;

Fig. 3 shows Pop-Up Screen 3 of the program;

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Fig. 4 shows Pop-Up Screen 4 of the program;

Fig. 5 shows Overlay 5 of the program;

20 Fig. 6 shows Screen 6 of the program;

Fig. 7 shows Overlay 7 of the program;

Fig. 8 shows Pop-Up Screen 8 of the program;

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Fig. 9 shows Pop-Up Screen 9 of the program;

Fig. 10 shows Pop-Up Screen 10 of the program;

30 Fig. 11 shows Pop-Up Screen 11 of the program;

Fig. 12 shows Pop-Up Screen 12 of the program;

Fig. 13 shows Pop-Up Screen 13 of the program;

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- Fig. 14 shows Pop-Up Screen 14 of the program;
- Fig. 15 shows Overlay Screen 15 of the program;
- 5 Fig. 16 shows Pop-Up Screen 16 through 19 of the program;
 - Fig. 17 shows Pop-Up Screen 20 of the program;
- 10 Fig. 18 shows Pop-Up Screen 21 of the program;
 - Fig. 19 shows Pop-Up Screen 22 of the program;
 - Fig. 20 shows Pop-Up Screen 23 of the program;

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- Fig. 21 shows Screen 24 of the program; and
- Fig. 22 shows Overlay 25 of the program.

20 DETAILED DESCRIPTION OF THE INVENTION

Now it has been found that virtual makeover can be accomplished on-line through an Internet web site. A visualising facial image is projected onto a monitor. The customer is then given the ability to paint various areas of the face representing locations normally to be covered by eye shadow, lipstick, foundation, eyeliner, mascara and the like. These different areas of the face can be painted with a variety of different colours from the cosmetic product palette until an optimum combination is reached satisfactory to a look which the customer desires. A final step of the method involves placement of an order with a vendor for cosmetic products with the chosen colour. No longer does a customer actually need to try the product on his or her own

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face. A very rapid and clean evaluation can occur through use of the visualised model face.

As an optional feature, the customer may input a measurement of their actual facial skin colour. Such measurement can occur through use of a home video camera that transmits digitalized information to the web site. Measured true skin colour values may also be obtained by the customer visiting a point-of-sale location (e.g. store) where such measurements can be taken by a vendor representative and fed into the web site database for future use at the customer's home location.

Advantageously the facial image appearing on the web site is initially coloured with a shade representing the customer's actual measured shade. Colours for lips and eye areas can then be manipulated through the computer program and visualised on the facial image for selection of the most desired combination. Particularly preferred is display of a facial image corresponding exactly to that of the customer based on the earlier digitalized photographic input of the customer's face.

Fig. 1 is a flow chart of a program according to one embodiment of this invention. After the opening screen, a user is introduced to Screen 2 known as the 'customer session'. Client information is obtained via this screen through either a swipe card, entry via a keyboard or from a database. The screen remains active (buttons are available) when overlays are displayed. Fig. 1 provides a view of Screen 2.

A Pop-up Screen 3 next appears with comments and client information to prompt follow-up calls. This screen can be used for contacting the client to remind them to visit the

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store when their cosmetic supply may be low. Fig. 3 illustrates the screen.

Pop-up Screen 4 covering 'Maintenance' is then available for appearance. This pop-up screen has options for calibration and data handling. Fig. 4 sets forth the screen.

Other information is collected with Overlay Screen 5. The Overlay screen selects/changes information about skin, 10 beauty habits, type and brand of products used. Overlay Screens 2 and the buttons on Screen 2 remain active. Fig. 5 describes Overlay Screen 5.

Screen 6 provides a 'Consultant's Choice'. This screen shows effects of colour palette, using client's skin colour. Information on the client's skin colour is obtained through application of a hand-held spectrophotometer against areas of the face not likely to be covered by makeup. These areas include the neck and under chin areas. The cosmetic 'look' can either be based on skin colour (skin recommendation), lipstick colour (colour family), or a specific look. Depending on selections, a list of typically five 'looks' is created, and selecting (another look) displays next look in the series. Fig. 6 sets forth Screen 6.

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Purchase information is achieved in Overlay Screen 7. This screen with previous and current purchase information (overlay to screen 2) is ordered by visit date. It contains information from up to the last five visits. Purchase information includes number, product type, product name and product number. Fig. 7 sets forth the purchase information screen.

Pop-up Screen 8 measures skin colour. It consists of a 35 series of screens to assist an adviser with colour

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measurement. This session is repeated three times. Fig. 8 depicts the Pop-up Screen 8.

Pop-up Screen 9 serves to obtain information for a new store. It is used by the installation team to correctly set up the store-specific parameters. Fig. 9 describes the Pop-up Screen 9.

Collection of data for the main office is found in Pop-up Screen 10. Data is placed in a store's outbox, and can then be transferred in three ways. These include: (1) remote computer can dial in and retrieve file from outbox; (2) transfer information to a server automatically using PC-anywhere script; and/or (3) copied to floppy disk and mailed to central site. Fig. 10 illustrates the Pop-up Screen 10.

Pop-up Screen 11 copies data from other stores. It can accept data in two ways. These include: (1) update using floppy supply by the main office; or (2) use of PC/Anywhere script to retrieve update file from main office outbox. Fig. 11 illustrates the Pop-up Screen 11.

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Pop-up Screen 12 allows selection of a colour lipstick family. The customer advisor can either enter a specific lipstick number, or choose a colour family, then choose a colour from the family. The active colour palette will consist of individual palettes that contain that lipstick. The advisor can also enter a specific look (which can be either from a previous visit, or any of the available looks in the palette). Fig. 12 describes the pop-up Screen 12.

Pop-up Screen 13 allows selection of lipstick from a colour family (as selected from Pop-up Screen 12). If the lipstick is also in the palette recommendation based on skin tone,

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the colour is put first in the list, and (expert fit) is added to the name. Fig. 13 describes the Pop-up Screen 13.

Pop-up 14 shows product selections (e.g. treatments in cosmetic colours) made during the present session. Product selections can be made during colour viewing (Screen 6), treatment/product options (Overlay 24) or Recommended Foundation (Pop-up Screen 20). There also is a display of recommended looks. Fig. 14 describes the Pop-up Screen 14.

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Overlay Screen 15 is used to provide a snapshot of the type of customer. For detail purchase history, Overlay 7 provides the purchase information. Included in this screen are key purchase properties, group by type, over the past twelve months. It is automatically displayed for each customer. Fig. 15 lists the Overlay Screen 15.

Pop-up Screen 16 is a probe for calibration/routine and for messages to calibrate probe. Fig. 16 details the Pop-up Screens 16-19.

Pop-up Screen 20 is used to recommend the best foundation product combination based on skin colour and product preferences. Fig. 17 details the Pop-up Screen 20.

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Pop-up Screen 21 is an advanced data management module. This is used by the main office. Fig. 18 details the Pop-up Screen 21.

30 Pop-up Screen 22 relates to language selection. Fig. 19 details Pop-up Screen 22.

Pop-up Screen 23 is used to locate and activate a client. If this is a new client, the 'new' button is clicked to

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create the new client file. Fig. 20 details Pop-up Screen 23.

Screen 24 details treatment/colour/fragrance options showing all the option products. Fig. 21 details Screen 24.

Overlay 25 focuses on skin colour analysis allowing selection of shade and tone. Fig. 22 details the Overlay 25.

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The foregoing description illustrates selected embodiments of the present invention. In light thereof variations and modifications will be suggested to one skilled in the art, all of which are within the scope of this invention.

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CLAIMS:

1. A virtual makeover method for furnishing a customer with colour cosmetics, the method comprising:

- 5 (i) downloading from an Internet web site a facial image;
 - (ii) selecting a colour cosmetic from eye shadow, lipstick, foundation, eyeliner, mascara, lip liner, blush and combinations thereof;
- (iii) selecting a first colour from a palette of colours for applying to a specified area of the facial image; and
 - (iv) placing an order for the selected cosmetic with corresponding selected colour.

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- 2. The method according to claim 1 wherein the facial image is painted with the customer's own natural skin colour.
- 3. The method according to claim 2 wherein the customer's own natural skin colour has been stored as digitalized information accessible to the web site, the digitalized information having been obtained through measurement of a customer's actual skin.
- 25 4. The method according to claim 3 wherein measurement of a customer's actual skin occurs at the customer's home through use of a camera with capability of digitalizing information taken from measurement of the customer's skin and a mechanism for transmitting the digitalized information to a central memory controlling the web site.

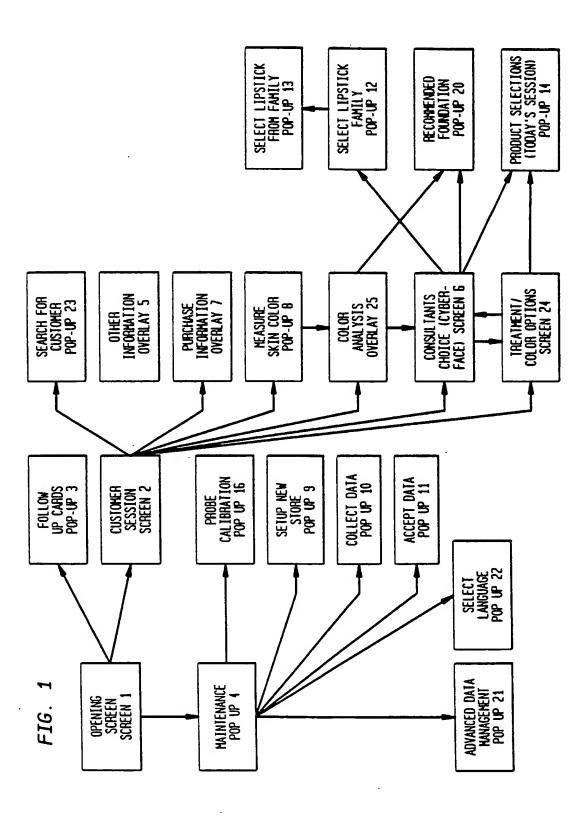


FIG. 2

Personal Information Name Last Name Address City Zip Code Profession	◆Verify Address and Cust Info! {SEARCH} {NEXT} {PREVIOUS} {CANCEL} {CLOSE} dirth Day Month ARESPONDS to Mailing
(Overlay area - not to scale	[OTHER INFORMATION] [PURCHASE HISTORY] [PURCHASE INFORMATION] [PRODUCT OPTIONS] [MEASURE SKIN COLOR] [COLOR ANALYSIS] [SHOW COLOR]

FIG. 3

Customer fo	llow up cards With clients information	1	
	List of Names	Information On Selected Customer	
		[] CALL COMPLETE	
		(PRINT) (CLOSE)	

FIG. 4

MAINTENANCE

[CALIBRATE SKIN READER]
[LANGUAGE]
[SET UP NEW STORE]
[COLLECT DATA FOR MAIN OFFICE]
[ACCEPT DATA FROM LOCAL STORES]
[ADVANCED DATA MANAGEMENT]
[CLOSE]

FIG. 5

			OTHER INFOR	MATION		
Skin Typ	ie	Age Profile	Beauty Habits	Fragrance	Other Brands	
⊕ Sensit Normal t Normal t Dry Oily	o dry	15-20 20-30 30-40 40-50 50+	Make-up Cleanser/Toner Moisturizer Special Treat. Sunscreens Body Products	More than one	Biotherm Channel Clarins Clinique Dior Estee Lauder H. Rubenstein Lancaster	
		cial Preferen ers fragrance	ces of Needs: free products		Lancome Shiseido YSL Other	(Accept

FIG. 6

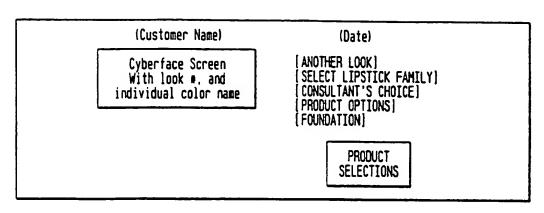


FIG. 7

	Purchase	Information	
Today	1	JANE DOE	
(1) Lipstick	125	Purchased	
(1) Hydrolight	Bisque	Recommended	
(1) Mousse	Bisque	Not Appropriate	[Recommended] [Purchase]
			[Sample] [Not Appropriate]
Date	905	JANE DOE	[Remove]
(2) Ceramide Complex		Sampled	
Today			
Look 001	Plums	Recommended	
Look 003 Look 004	Reds Naturals	Recommended Recommended	

FIG. 8

М	EASURE SKIN	WITH CO	LOR READER		
PRESS I	EASURE TO R	record c	OLOR FROM F	READER	
OR E	OR ENTER L. A. B VALUES FROM REMOTE				
·	[: [:	A= A= A=	8= 8= 8=		
COLOR	READER İDEN	TIFICAT	ION:	••••	
F	oundation C	olor Ma	tch:	{ MEASURE } { ACCEPT } { CANCEL }	

FIG. 9

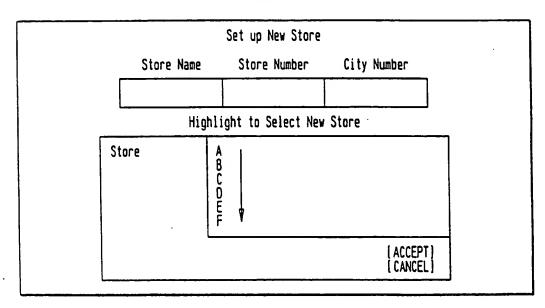


FIG. 10

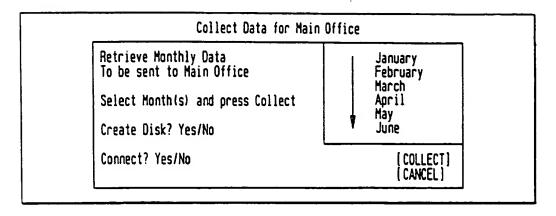


FIG. 11

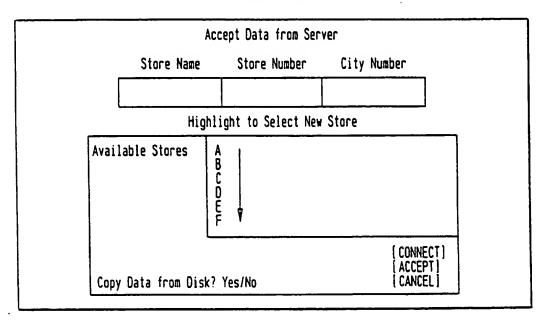


FIG. 12

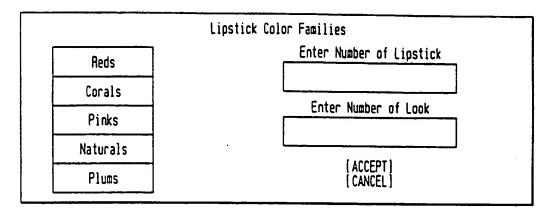


FIG. 13

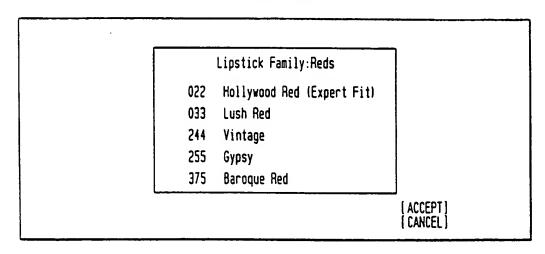


FIG. 14

	Toda	y's Product Selections	
(#) Product Type ⊗ (1)Lipstick ⊗ (2)Hydrolight ⊗ (1)Housse ⊗ Look 321 ⊗ Look 496	Color 121 Bisque Bisque Reds Plums	Recommended Purchased Recommended Recommended Recommended	[Recommended] [Purchase] [Sample] [Not Appropriate] [Remove] [Print] [Accept]

FIG. 15

ast purchase:	Date	Jane Doe
Total purchases:	2 (Last)	12 (Past Year)
SkinCare (3)		
⊗(4) Ceramide Capsules ⊗(3) Millenium Cream ⊗(2) Perfection Cream	30 Jan 30 Nov 30 Nov	Purchased Purchased Purchased
Color (2)		
⊗(1) Flawless Finish (121) ⊗(1) Exceptional Lipstick (906)	30 Jan 30 Dec	Purchased Purchased
Fragrance (1)		
⊗(1) Sunflowers ⊗(1) Red Door	30 Oct 30 Sep	Purchased Purchased
Fragrance (1)		
 ⊗ Red Door ⊗ Exceptional Lipstick ⊗ Perfection Cream 	30 Jan 30 Jan 30 Jan	Sampled Recommended Non-Appropriate

⊗ - Denotes product type icon

FIG. 16

					_	
Pop-up 19	Switch to Sel Cal. Plate Ready to Read Color Tile Color Reading in Progress	Turn color reader off and Place Color Reader on the Press button on color reader on.	To record calibration color	Stopi	Probe calibrated, OK to continue?	Continue
Pop-up 18	Ready to Read Color Tile	Place Color Reader on the White Plate.	Press (Enter) when ready!	90	בוונגן	
Pop-up 17	Switch to Set Cal. Plate	Turn color reader off and on.	Reader display should read	Press (Enter) when ready!	carcer	Enter
Pop-up 16	Probe Calibration	Probe Calibration Probe not calibrated!		calibrated - Continue anyway? (Y or N)		

FIG. 17

R	ecommended Flawless Finish	Foundation
Product	Color	
Mousse	234	[Recommend]
Hydrolight	123	[Purchase]
Pressed Powder	Medium 2	[Sample]
		[Accept]

FIG. 18

Update Doors	Yes	No	
Update Product List	Yes	No	
Export new Clients	Yes	No	[Import Update File
Clean returns database	Yes	No	[Create Update File
Delete entries more than	3 months		[Print Returns]
Defete citil les more than	6 months 9 months 12 months		[Connect] [Close]

FIG. 19

Language Selection	
[English]	
[Spanish]	
(French)	

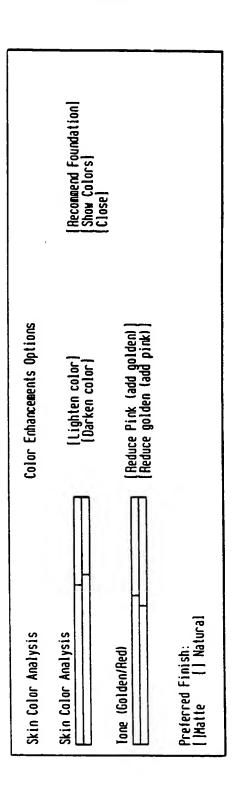
FIG. 20

Search for Customer			
Name:			
List of Names	Information On Selected Customer		
	[ACCEPT] [NEW CUSTOMER] [CANCEL]		

FIG. 21

Treatment/Color Product Options					
Product	Color	[]Treatment []Color			
Skin Illuminating Complex Millenium Night Millenium Energist		()Fragrance (Recommend) (Purchase)			
		[Sample] [Not appropriate]			
Advertiseme Video	nt	(What's New)			
		{ ACCEPT } { CANCEL }			

FIG. 22



INTERNATIONAL SEARCH REPORT

Intern nel Application No PCT/EP 00/05459

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06T11/00 A45D44/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) $IPC \ 7 \qquad G06T \qquad A45D$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, IBM-TDB, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT				
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A	US 5 478 238 A (GOURTOU ET AL.) 26 December 1995 (1995-12-26) the whole document/	1-4		

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance. E earlier document but published on or after the international filling date. L document which may throw doubts on priority claim(s) or which is cated to establish the publication date of another citation or other special reason (as specified). O document referring to an oral disclosure, use, exhibition or other means. P document published prior to the international filling date but tater than the priority date claimed.	 'T' later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention 'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. '&' document member of the same patent family
Date of the actual completion of the international search	Date of malting of the international search report
23 November 2000	01/12/2000
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni;	Authorized officer Abram, R
Fax: (+31-70) 340-3016	ADI alli, K

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INTERNATIONAL SEARCH REPORT

Intern unal Application No

C (0		Intern unal Application No
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